

IN THE CLAIMS

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1 (Currently Amended): A tool comprising:

a drill bit having a proximal bit end, ~~[[and]]~~ a distal bit end, the distal end configured to cut bone;

a housing having ~~proximal~~ a first end, ~~[[and]] distal ends~~ a second end and a first bore configured to slidably receive the drill bit, the second end ~~associated~~ being adapted for association with a bone portion~~[[,]]~~; and

an adjustable depth stop assembly, having a proximal end, ~~[[and]] a distal~~ ~~[[ends]] end~~ and a second bore configured to slidably receive the drill bit, ~~the depth stop further having comprising~~ a portion configured to selectively lock the drill bit to the second bore, an adjustment sleeve configured to slidably engage the drill bit, and a shuttle member adapted to be slidable with respect to the adjustment sleeve between a first position in which the adjustable depth stop is axially locked to the drill bit and a second position in which the adjustable depth stop is axially movable with respect to the drill bit~~[[;]]~~.

wherein when the drill bit is locked to the adjustable depth stop assembly the ~~proximal~~ first end of the housing is located a first axial distance from the distal end of the adjustable depth stop assembly, the first axial distance proportional to a maximum drilling depth into the bone portion.

Claim 2 (Currently Amended): The tool of claim 1, the ~~distal~~ second end of the housing further configured to engage the bone portion.

Claim 3 (Currently Amended): The tool of claim 1, the ~~distal~~ second end of the housing further configured to engage a bone fixation element.

Claim 4 (Original): The tool of claim 3, wherein the bone fixation element comprises a bone plate or a pedicle screw clamping element.

Claim 5 (Currently Amended): The tool of claim 3, wherein the bone fixation element

comprises a bone plate and the ~~distal~~ second end of the housing is configured to engage a fastener hole of the plate.

Claim 6 (Currently Amended): The tool of claim 5, the ~~distal~~ second end of the housing further comprising threads configured to engage corresponding threads of the fastener hole.

Claim 7 (Currently Amended): The tool of claim 1, the ~~distal~~ second end of the housing further configured to engage a screw hole of a bone plate to fix the trajectory of the drill bit with respect to the bone plate and the bone portion.

Claim 8 (Currently Amended): The tool of claim 1, wherein the drill bit is axially positionable with respect to the housing, the drill bit further having an extended position in which the distal bit end of the drill bit extends distally beyond the ~~housing~~ distal second end of the housing.

Claim 9 (Currently Amended): The tool of claim 8, the drill bit further having a retracted position in which the distal bit end of the drill bit does not extend distally beyond the ~~housing~~ distal second end of the housing.

Claim 10 (Original): The tool of claim 9, the housing further comprising a spring having a first surface associated with the housing and a second surface associated with the drill bit, the spring operable to bias the drill in the retracted position.

Claim 11 (Currently Amended): The tool of claim 8, the drill bit further comprising an axial engagement portion configured to engage a corresponding axial engagement portion of the housing to prevent the distal bit end of the drill bit from moving axially past the ~~proximal~~ first end of the housing.

Claim 12 (Original): The tool of claim 11, wherein the axial engagement portions of the drill bit and housing comprise a pin and a shoulder, respectively.

Claim 13 (Currently Amended): The tool of claim 1, the housing further comprising a proximal housing portion and a distal housing portion, the proximal housing portion comprising a spring operable to bias the drill in the retracted position, the distal housing

portion comprising threads for engaging a bone screw hole of the a bone plate.

Claim 14 (Currently Amended): The tool of claim 13, the proximal end of the distal housing portion further comprising protrusion and recess elements configured to engage a respective recess and protrusion elements on the distal end of the proximal housing portion to rotationally fix the two housing portions.

Claim 15 (Original): The tool of claim 13, the housing further comprising a retainer for removably coupling the proximal and distal housing portions, wherein the housing portions may be disassembled to facilitate cleaning and/or sterilization of the tool.

Claim 16 (Original): The tool of claim 13, the proximal housing portion further comprising a proximal end having an increased diameter to allow gripping by a user.

Claim 17 (Original): The tool of claim 13, the proximal housing portion further having a proximal stop surface configured to engage the adjustable depth stop assembly.

Claim 18 (Canceled)

19 (Currently Amended): The tool of claim [[18]] 1, wherein moving the shuttle between first and second positions comprises moving the shuttle along an axis substantially perpendicular to the longitudinal axis of the drill bit.

Claim 20 (Currently Amended): The tool of claim [[18]] 1, wherein moving the shuttle between first and second positions comprises moving the shuttle along an axis substantially non-parallel to the longitudinal axis of the drill bit.

Claim 21 (Currently Amended): The tool of claim [[18]] 1, the shuttle further comprising a drill bit engaging surface, the drill bit further comprising a shuttle engaging surface.

Claim 22 (Original): The tool of claim 21, wherein one of the drill bit engaging surface and shuttle engaging surface comprises a projection and the other comprises a recess.

Claim 23 (Currently Amended): The tool of claim [[18]] 1, the adjustable depth stop

assembly further comprising a locking sleeve associated with the adjustment sleeve, the locking sleeve co-operable with the shuttle to move the shuttle between the first and second positions.

Claim 24 (Original): The tool of claim 23, the locking sleeve and shuttle further comprising corresponding tapered sliding surfaces each of which forms an oblique angle with respect to the longitudinal axis of the drill bit, wherein axial movement of the locking sleeve moves the shuttle between the first and second positions.

Claim 25 (Original): The tool of claim 21, wherein the shuttle is axially fixed to the adjustment sleeve, the locking sleeve is axially translatable along the adjustment sleeve, and wherein moving the locking sleeve along the adjustment sleeve in a first direction causes the shuttle to move toward the first position.

Claim 26 (Original): The tool of claim 25, wherein moving the locking sleeve along the adjustment sleeve in a second direction causes the shuttle to move toward the second position.

Claim 27 (Currently Amended): The tool of claim ~~[[18]]~~ 1, the adjustable depth stop assembly further comprising a spring associated with the adjustment sleeve to bias the shuttle in the first position.

Claim 28 (Currently Amended): The tool of claim ~~[[18]]~~ 1, the adjustment sleeve having a distal stop surface configured to engage a proximal stop surface of the housing.

Claim 29 (Currently Amended): A tool comprising:

a drill bit having ~~a~~ proximal bit end, ~~[[and]]~~ a distal ~~[[ends]]~~ bit end and a longitudinal axis, the proximal bit end configured to connect to a driving attachment and the distal bit end having a cutting surface for cutting bone, the drill bit further having an extended position corresponding to a first drilling depth into bone~~[[,]]~~;

a housing comprising ~~proximal~~ a first end, ~~and distal ends~~ a second end and a first longitudinal bore, the drill bit axially positionable within the first longitudinal bore, the ~~proximal~~ first end further having a stop surface, the ~~distal~~ second end ~~associated being~~ adapted for association with a bone portion~~[[,]]~~; and

an adjustable depth stop assembly, having a proximal end, ~~[[and]]~~ a distal ~~[[ends]]~~ end and a second longitudinal bore, wherein the drill bit selectively axially lockable within the second longitudinal bore~~[[,]]~~ and the distal end ~~comprising~~ comprises a stop surface configured to engage the housing stop surface, comprising an adjustment sleeve configured to slidably engage the drill bit, and a shuttle member adapted to be slidable with respect to the adjustment sleeve between a first position in which the adjustable depth stop assembly is axially locked to the drill bit and a second position in which the adjustable depth stop assembly is axially movable with respect to the drill bit,

wherein the adjustable depth stop assembly further ~~having~~ has an unlocked and a locked ~~configurations~~ configuration,

wherein the drill bit is axially translatable within the adjustable depth stop assembly when the adjustable depth stop assembly is in the unlocked position, and the drill bit axially fixed with respect to the adjustable depth stop assembly when the adjustable depth stop assembly is in the locked configuration~~[[;]]~~, and

wherein adjusting the distance between the respective stop surfaces of the housing and the adjustable depth stop assembly adjusts the first drilling depth into the bone portion.

Claim 30 (Currently Amended): The tool of claim 29, the ~~distal~~ second end of the housing further configured to engage the bone portion.

Claim 31 (Currently Amended): The tool of claim 29, the ~~distal~~ second end of the housing further configured to engage a bone engaging element.

Claim 32 (Original): The tool of claim 31, wherein the bone engaging element comprises a bone plate or a pedicle screw clamping element.

Claim 33 (Currently Amended): The tool of claim 32, wherein the bone engaging element is a bone plate and the ~~distal~~ second end of the housing is configured to engage a fastener hole of the plate.

Claim 34 (Currently Amended): The tool of claim 33, the ~~distal~~ second end of the housing comprising threads configured to engage corresponding threads of the fastener hole.

Claim 35 (Currently Amended): The tool of claim 29, the ~~distal~~ second end of the housing

further configured to engage a fastener hole of a bone plate, the ~~distal~~ second end comprising threads configured to engage corresponding threads of the hole in the plate.

Claim 36 (Currently Amended): The tool of claim 29, the ~~distal~~ second end of the housing further configured to engage a fastener hole of a bone plate to fix the trajectory of the drill bit with respect to the bone plate.

Claim 37 (Currently Amended): The tool of claim 29, the drill bit further having a retracted position in which the distal bit end of the drill bit does not extend distally beyond the ~~housing~~ distal second end of the housing.

Claim 38 (Original): The tool of claim 29, the housing further comprising a spring having a first surface associated with the housing and a second surface associated with the drill bit, the spring operable to bias the drill in the retracted position.

Claim 39 (Original): The tool of claim 29, the drill bit further comprising an axial engagement portion configured to engage a corresponding axial engagement portion of the housing to prevent the distal end of the drill bit from moving axially past the proximal end of the housing.

Claim 40 (Original): The tool of claim 39, wherein the axial engagement portions of the drill bit and housing comprise a pin and a shoulder, respectively.

Claim 41 (Currently Amended): The tool of claim 29, the housing further comprising a proximal housing portion and a distal housing portion, the proximal housing portion comprising a spring operable to bias the drill in the retracted position, the distal housing portion comprising threads for engaging a bone screw hole of the bone plate.

Claim 42 (Currently Amended): The tool of claim 41, the proximal end of the distal housing portion further comprising protrusion and recess elements configured to engage a respective recess and protrusion elements on the distal end of the proximal housing portion to rotationally fix the two housings.

Claim 43 (Currently Amended): The tool of claim 41, the housing further comprising a

retainer for removably coupling the proximal and distal ~~housings~~ housing portions, wherein the proximal and distal ~~housings~~ housing portions can be decoupled to facilitate cleaning and/or sterilization of the tool.

Claim 44 (Currently Amended): The tool of claim 41, the proximal housing portion further comprising a proximal end having an increased diameter to allow gripping by a user.

Claim 45 (Original): The tool of claim 41, the proximal housing portion further having a proximal stop surface configured to engage the adjustable depth stop assembly.

Claim 46 (Canceled)

Claim 47 (Currently Amended): The tool of claim ~~[[46]]~~ 29, wherein moving the shuttle between first and second positions comprises moving the shuttle along an axis substantially perpendicular to the longitudinal axis of the drill bit.

Claim 48 (Currently Amended): The tool of claim ~~[[46]]~~ 29, wherein moving the shuttle between first and second positions comprises moving the shuttle along an axis substantially non-parallel to the longitudinal axis of the drill bit.

Claim 49 (Currently Amended): The tool of claim ~~[[46]]~~ 29, the shuttle further comprising a drill bit engaging surface, the drill bit further comprising a shuttle engaging surface.

Claim 50 (Original): The tool of claim 49, wherein one of the drill bit engaging surface and shuttle engaging surface comprises a projection and the other comprises a recess.

Claim 51 (Currently Amended): The tool of claim 46, the adjustable depth stop assembly further comprising a locking sleeve associated with the adjustment sleeve, the locking sleeve co-operable with the shuttle to move the shuttle between the first and second positions.

Claim 52 (Original): The tool of claim 51, the locking sleeve and shuttle further comprising corresponding tapered sliding surfaces each of which forms an oblique angle with respect to the longitudinal axis of the drill bit, wherein axial movement of the locking sleeve moves the shuttle between the first and second positions.

Claim 53 (Original): The tool of claim 51, wherein the shuttle is axially fixed to the adjustment sleeve, the locking sleeve is axially translatable along the adjustment sleeve, and wherein moving the locking sleeve along the adjustment sleeve in a first direction causes the shuttle to move toward the first position.

Claim 54 (Original): The tool of claim 51 wherein moving the locking sleeve along the adjustment sleeve in a second direction causes the shuttle to move toward the second position.

Claim 55 (Currently Amended): The tool of claim [[46]] 29, the adjustable depth stop assembly further comprising a spring associated with the adjustment sleeve to bias the shuttle in the first position.

Claims 56-62 (Canceled)